

Title (en)
Control system for an internal combustion engine

Title (de)
Steuersystem für einen Verbrennungsmotor

Title (fr)
Système de contrôle pour moteur à combustion interne

Publication
EP 2532865 A1 20121212 (EN)

Application
EP 12000785 A 20120207

Priority
JP 2011127238 A 20110607

Abstract (en)
A control system for a direct-injection four-stroke internal combustion engine having at least one cylinder, an intake passage supplying air to the cylinder, and an exhaust passage removing exhaust gas from the cylinder, the control system including a mass air flow meter configured to detect a mass air flow upstream of the cylinder and a control unit. The control unit is configured to detect an intake air density in the cylinder, calculate an in-cylinder trapped intake air amount based on a cylinder volume and the detected intake air density, and estimate a difference between the intake air amount detected by the mass air flow meter and the in-cylinder trapped intake air amount, the estimated difference being an estimated scavenging amount representing a fresh air blowby amount passing from the intake passage into the exhaust passage.

IPC 8 full level
F02D 41/00 (2006.01); **F02D 35/02** (2006.01)

CPC (source: EP US)
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Citation (search report)
• [A] US 2001042529 A1 20011122 - KAWASAKI TAKAO [JP], et al
• [A] US 7621256 B2 20091124 - CUNNINGHAM RALPH WAYNE [US], et al
• [A] JP 2006083804 A 20060330 - NISSAN MOTOR

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CN111315975A; DE102017202554B4; WO2019094318A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
EP 2532865 A1 20121212; **EP 2532865 B1 20170426**; CN 102817729 A 20121212; CN 102817729 B 20150617; JP 2012251535 A 20121220; US 2012316756 A1 20121213; US 8712668 B2 20140429

DOCDB simple family (application)
EP 12000785 A 20120207; CN 201210080718 A 20120323; JP 2011127238 A 20110607; US 201213407112 A 20120228